

Amendments to the Specification:

Please replace the paragraph beginning at page 1, line 6 and ending at page 1, line 24 with the following amended paragraph.

~~The present application~~ This patent is related to U.S. patent application Ser. No. 10/348,077, entitled "Method and System for Obtaining Logical Performance Data for a Circuit in a Data Network," filed on January 21, 2003, and U.S. patent application Ser. No. 10/348,592, entitled "Method and System for Provisioning and Maintaining a Circuit in a Data Network," filed on January 21, 2003. This application is also related to U.S. patent application Ser. No. 101745,117 entitled "Method And System For Providing A Failover Circuit For Rerouting Logical Circuit Data In A Data Network," filed on December 23, 2003, U.S. patent application Ser. No. 101745,047, entitled "Method And System For Automatically Renaming Logical Circuit Identifiers For Rerouted Logical Circuits In A Data Network," filed on December 23, 2003, U.S. patent application Ser. No. 101745,170, entitled "Method And System For Automatically Identifying A Logical Circuit Failure In A Data Network," filed on December 23, 2003, and U.S. patent application Ser. No. 101744,921, entitled "Method And System For Automatically Rerouting Logical Circuit Data In A Data Network," filed on December 23, 2003, All of the above-referenced applications are assigned to the same assignee as ~~the present application~~ this patent and are expressly incorporated herein by reference.

Please replace the paragraph beginning at page 4, line 9 and ending at page 4, line 15 with the following amended paragraph.

The second logical circuit may be a logical failover circuit in the data network which may be a currently unused logical circuit in the data network. The logical circuit identifiers may be data link connection identifiers ("DLCIs") or virtual path/virtual circuit identifiers ("VPI/VCIs"). The first and second logical circuits may be either permanent virtual circuits

("PYCs") or [[a]] switched virtual circuits ("SYCs"). The data network may be either a frame relay network or an asynchronous transfer mode ("ATM") network.

Please replace the paragraph beginning at page 8, line 3 and ending at page 8, line 15 with the following amended paragraph.

As used in the foregoing description and the appended claims, a logical circuit is defined as a portion of the network circuit wherein data is sent over variable communication data paths or logical connections established between the first and last network devices within a LATA or IEC network and over fixed communication data paths or logical connections between LATAs (or between IECs). Thus, no matter what path the data takes within each LATA or IEC, the beginning and end of each logical connection between networks will not change. For example, the logical circuit of the network circuit in the data network₂ may [[2]] include a variable communication path within the LATA 5 and a fixed communication path (i.e., the logical connection 102) between the LATA 5 and the IEC 10. It will be understood by those skilled in the art that the logical connections 102 and 104 in the data network 2 may include network-to-network interfaces ("NNIs") between the last sending switch in a LATA and the first receiving switch in an IEC.

Please replace the paragraph beginning at page 13, line 13 and ending at page 13, line 19 with the following amended paragraph.

The physical element module 155 troubleshoots the physical connections for a physical circuit by communicating with test module 180, which interfaces with the physical connections via test access point 156. The test module 180 obtains the status of the physical circuit by transmitting "clean" test signals to test access point 156 (shown in FIG. 2) which "loops back" the signals for detection by the test module 180. It should be understood that there may be multiple test access points on each of the physical connections for the physical circuit.

Please replace the paragraph beginning at page 13, line 20 and ending at page 14, line 13 with the following amended paragraph.

The network management system 175 further includes the network management module 176 which is in communication with the service order system 160, the network database 170, the logical element module 153, and the physical element module 155 through communications channels 172. It should be understood that in one embodiment, the network management system ~~[[176]]~~ 175 may also be in communication with the LATA 15, the IEC 10, and the failover network 17. The communications channels 172 may be on a LAN. The network management module 176 may consist of terminals (not shown), which may be part of a general-purpose computer system that displays a map-based GUI of the logical connections in data networks. The network management module ~~[[175]]~~ 176 may communicate with the logical element module 153 and the physical element module 155 using a Common Object Request Broker Architecture ("CORBA"). As is known to those skilled in the art, CORBA is an open, vendor-independent architecture and infrastructure which allows different computer applications to work together over one or more networks using a basic set of commands and responses. The network management module 176 may also serve as an interface for implementing logical operations to provision and maintain network circuits. The logical operations may be implemented as machine instructions stored locally or as instructions retrieved from the logical and physical element modules 153 and 155. An illustrative method detailing the provisioning and maintenance of network circuits in a data network is presented in U.S. patent application Ser. No. 10/348,592, entitled "Method And System For Provisioning And Maintaining A Circuit In A Data Network," filed on January 23, 2003, and assigned to the same assignee as this ~~application~~ patent, which is expressly incorporated herein by reference. An illustrative network management module is

the Broadband Network Management System® ("BBNMS") marketed by TELECORDIA™ TECHNOLOGIES, Inc. of Morristown, NJ.

Please replace the paragraph beginning at page 15, line 10 and ending at page 15, line 28 with the following amended paragraph.

The logical operations 500 begin at operation 505 where the network management module 176 determines a failure in a logical circuit in the data network 2. It should be understood that a logical circuit failure occurs when one or more logical connections in a logical circuit have failed. As discussed above in the description of FIG. 2, trap data indicating a logical connection failure may include status information indicating that a switch in the data network is discarding frames or cells. Such an event may occur, for example, when the maximum CIR or Bc (as specified in the DLCI of a frame in a frame relay network, for example) is exceeded. The trap data may be received from the logical element module 153 and may be generated by one or more network devices or switches in the data network which indicate the status of one or more logical connections making up the logical circuit. It will be appreciated that in one embodiment of the present invention, the network management module 176 may be configured to automatically monitor the logical circuits for trap data to identify the logical circuit failure. An illustrative method detailing the automatic monitoring of logical circuits to identify a logical circuit failure in a data network is presented in co-pending U.S. patent application Ser. No. 10/745,170, entitled "Method And System For Automatically Identifying A Logical Circuit Failure In A Data Network," filed on December 23, 2003, and assigned to the same assignee as this ~~application~~ patent, which is expressly incorporated herein by reference.